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PATENT APPLICATION  
Attorney Docket No. 15966-609 (Cura 109)

#6

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Burgess *et al*  
SERIAL NUMBER: 09/730,617 EXAMINER: Not Yet Assigned  
FILING DATE: December 5, 2000 ART UNIT: 1645  
FOR: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING THE SAME

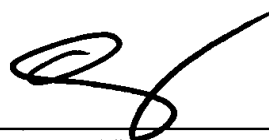
**Box MISSING PARTS**

Assistant Commissioner for Patents  
Washington, D.C. 20231

STATEMENT IN SUPPORT OF COMPUTER READABLE  
FORM SUBMISSION UNDER 37 C.F.R. § 1.821(f)

I hereby state that the content of the paper and computer readable forms of the Sequence Listing, submitted in the above-identified application in accordance with 37 C.F.R. § 1.821(c) and 1.821(e), respectively, are the same. No new matter is added.

Respectfully submitted,



Date: July 9, 2001

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#6

## SEQUENCE LISTING

<110> B. J. J. J., Catherine E  
Prayaga, Sudhirdas K  
Shimkets, Richard A  
Rastelli, Luca  
Zerhusen, Bryan D  
Mezes, Peter S

<120> Novel Proteins and Nucleic Acids Encoding the Same

<130> 15966-609

<140> 09/730,617

<141> 2000-12-05

<150> 60/169,056

<151> 1999-12-06

<150> 60/169,886

<151> 1999-12-09

<150> 60/169,866

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<151> 1999-12-10

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 35 40 45

Glu Val Ala Val Glu Ala Ala Gly Ile Thr Pro Trp Thr Val Gly Ser  
 50 55 60

Glu His Pro Pro Cys Pro Tyr Pro Ser Leu His Ala Ser Pro Phe Thr  
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 His Thr Ser Leu Arg Asp Gln Arg Leu Gln Leu Ser His Asp Leu Leu  
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Phe Val Gly Cys Ala Val Arg Glu Phe Thr Phe Leu Ala Lys Lys Pro  
 35 40 45

Gly Cys Arg Gly Leu Arg Ile Thr Thr Asp Ala Cys Trp Gly Arg Cys  
 50 55 60

Glu Thr Trp Glu Lys Pro Ile Leu Glu Pro Pro Tyr Ile Glu Ala His  
 65 70 75 80

His Arg Val Cys Thr Tyr Asn Glu Thr Lys Gln Val Thr Val Lys Leu  
 85 90 95

Pro Asn Cys Ala Pro Gly Val Asp Pro Phe Tyr Thr Tyr Pro Val Ala  
 100 105 110

Ile Arg Cys Asp Cys Gly Ala Cys Ser Thr Ala Thr Thr Glu Leu Arg  
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Leu Met Pro Gly Glu Ala Ala Val Ala Leu Gly Phe Trp Cys Gln Arg  
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Arg Arg Gln Gly Ser Arg Thr Thr Gly Thr Arg Trp Arg His Ala Ala  
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Cys Val Glu Thr Glu Glu Gly Pro Ser Leu Gln Leu Glu Pro Ser Thr  
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Glu Ala Thr Arg Phe Thr Phe Phe Gln Ser Ser Ser Gly Ser Ala Phe  
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Arg Leu Glu Ala Ala Ala Trp Pro Gly Trp Phe Leu Cys Gly Pro Ala  
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Met Val Trp Val Leu Ser Gly Asn Ser Leu Ile Ala Ala Pro Leu Ser  
 35 40 45

Arg Ser Ile Lys Pro Val Thr Leu His Leu Ile Ala Cys Arg Asp Thr  
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Glu Phe Ser Asp Lys Glu Lys Gly Asn Met Val Tyr Leu Gly Ile Lys  
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Gly Lys Asp Leu Cys Leu Phe Cys Ala Glu Ile Gln Gly Lys Pro Thr  
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Leu Gln Leu Lys Glu Lys Asn Ile Met Asp Leu Tyr Val Glu Lys Lys  
 100 105 110

Ala Gln Lys Pro Phe Leu Phe Phe His Asn Lys Glu Gly Ser Thr Ser  
 115 120 125

Val Phe Gln Ser Val Ser Tyr Pro Gly Trp Phe Ile Ala Thr Ser Thr  
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Leu Asn Gly Leu Asn Leu Cys Leu Met Cys Ala Lys Val Gly Asp Gln  
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Pro Thr Leu Gln Leu Lys Leu Gln Glu Lys Asp Ile Met Asp Leu Tyr  
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Asn Gln Pro Glu Pro Val Lys Ser Phe Leu Phe Tyr His Ser Gln Ser  
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Gly Arg Asn Ser Thr Phe Glu Ser Val Ala Phe Pro Gly Trp Phe Ile  
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 Pro Leu Gly Thr Ala Pro His Thr Ser Leu Arg Asp Gln Arg Leu Gln  
 65 70 75 80  
 Leu Ser His Asp Leu Leu Gly Ile Leu Leu Leu Lys Lys Ala Leu Gly  
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Lys Lys Ser Leu Glu Pro Ser Ser Pro Ser Gly Pro Leu Arg Asp Gln  
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Arg Leu Gln Leu Ser His Asp Leu Leu Gly Ile Leu Leu Leu Lys Lys  
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Ala Leu Gly Val Ser Leu Ser Arg Pro Ala Pro Gln Ile Gln Tyr Arg  
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Thr Gly His Phe Met Gly Lys Lys Ser Leu Glu Pro Ser Ser Pro Ser  
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His Trp Gly Gln Leu Pro Thr Pro Pro Leu Arg Asp Gln Arg Leu Gln  
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Leu Ser His Asp Leu Leu Gly Ile Leu Leu Leu Lys Lys Ala Leu Gly  
85 90 95

Val Ser Leu Ser Arg Pro Ala Pro Gln Ile Gln Tyr Arg Arg Leu Leu  
100 105 110

Val Gln Ile Leu Gln Lys  
115

<210> 27

<211> 112

<212> PRT

<213> Homo sapiens

<400> 27

Met Phe Gly Ser Leu Leu His Phe Ala Leu Leu Ala Ala Gly Val Val  
1 5 10 15

Pro Leu Ser Trp Asp Leu Pro Glu Pro Arg Ser Arg Ala Ser Lys Ile  
20 25 30

Arg Val His Ser Arg Gly Lys Leu Trp Ala Ile Gly His Phe Met Gly  
35 40 45

Lys Lys Ser Leu Glu Pro Ser Ser Pro Ser Pro Leu Gly Thr Ala Pro  
50 55 60

His Thr Ser Leu Arg Asp Gln Arg Leu Gln Leu Ser His Asp Leu Leu  
65 70 75 80

Gly Ile Leu Leu Leu Lys Lys Ala Leu Gly Val Ser Leu Ser Arg Pro  
85 90 95

Ala Pro Gln Ile Gln Tyr Arg Arg Leu Leu Val Gln Ile Leu Gln Lys  
100 105 110

<210> 28

<211> 117

<212> PRT

<213> Homo sapiens

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<400> 28

Met Thr Arg Gln Ala Gly Ser Thr Trp Leu Leu Arg Gly Leu Leu Leu  
1 5 10 15

Phe Ala Leu Phe Val Ser Gly Ile Thr Pro Phe Ser Trp Asp Leu Pro  
20 25 30

Glu Pro Arg Ser Arg Ala Ser Lys Ile Arg Val His Pro Arg Gly Asn  
35 40 45

Leu Trp Ala Thr Gly His Phe Met Gly Lys Lys Ser Leu Glu Pro Pro  
50 55 60

Ser Leu Ser Leu Val Gly Thr Ala Pro Pro Ile Thr Gln Arg Glu Gln  
65 70 75 80

Arg Leu Gln Leu Ser His Asp Leu Leu Arg Ile Leu Leu Leu Gln Lys  
85 90 95

Ala Leu Gly Met Asn Leu Ser Gly Pro Ala Pro Pro Ile Gln Tyr Arg  
100 105 110

Arg Leu Leu Gln Lys  
115

<210> 29

<211> 121

<212> PRT

<213> Homo sapiens

<400> 29

Met Ala Arg Arg Ala Gly Gly Ala Arg Met Phe Gly Ser Leu Leu Leu  
1 5 10 15

Phe Ala Leu Leu Ala Ala Gly Val Ala Pro Leu Ser Trp Asp Leu Pro  
20 25 30

Glu Pro Arg Ser Arg Ala Ser Lys Ile Arg Val His Ser Arg Gly Asn  
35 40 45

Leu Trp Ala Thr Gly His Phe Met Gly Lys Lys Ser Leu Glu Pro Ser  
50 55 60

Ser Pro Ser His Trp Gly Gln Leu Pro Thr Pro Pro Leu Arg Asp Gln  
65 70 75 80



Arg Leu Gln Leu Ser His Asp Leu Leu Gly Ile Leu Leu Leu Lys Lys  
85 90 95

Ala Leu Gly Val Ser Leu Ser Arg Pro Ala Pro Gln Ile Gln Tyr Arg  
100 105 110

Arg Leu Leu Val Gln Ile Leu Gln Lys  
115 120

<210> 30  
<211> 205  
<212> DNA  
<213> Salmo salar

<400> 30  
ctgctggggt cgctgtgaga cctgggagaa acccattctg gaacccccct atattgaagc 60  
ccatcatcga gtctgtacct acaacgagac caaacagggtg actgtcaagc tgcccaactg 120  
tgccccggga gtcgaccct tctacaccta tcccgaggcc atccgctgtg actgcggagc 180  
ctgctccact gccaccacgg agctg 205

<210> 31  
<211> 124  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: consensus  
sequence

<400> 31  
ctgcgggctt ggaccggagc ctttaaccca ttactcacg ttgacctacg agccagactc 60  
ctccactgtc cccggtgacc cttcacctac cgtggctgct gtgactgcgc tgcagaccg 120  
actg 124

<210> 32  
<211> 201  
<212> DNA  
<213> Homo sapiens

<400> 32  
ctgcagtggc cactgcgtca ccaaggagcc ggttttcaag agccattttt ccaccgtgta 60  
ccagcatgtg tgcacctacc gggacgtccg ctatgaaacg atccgcctac ctgactgtcc 120  
cccttgggtg gaccatcatg tcacctacc tgtggctctg agctgtgact gcagcctctg 180  
taacatggac acttctgact g 201

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<210> 33  
 <211> 85  
 <212> PRT  
 <213> Cyprinus carpio

<400> 33  
 Thr Phe Leu Ala Lys Lys Pro Gly Cys Arg Gly Leu Arg Ile Thr Thr  
 1 5 10 15

Asp Ala Cys Trp Gly Arg Cys Glu Thr Trp Glu Lys Pro Ile Leu Glu  
 20 25 30

Pro Pro Tyr Ile Glu Ala His His Arg Val Cys Thr Tyr Asn Glu Thr  
 35 40 45

Lys Gln Val Thr Val Lys Leu Pro Asn Cys Ala Pro Gly Val Asp Pro  
 50 55 60

Phe Tyr Thr Tyr Pro Val Ala Ile Arg Cys Asp Cys Gly Ala Cys Ser  
 65 70 75 80

Thr Ala Thr Thr Glu  
 85

<210> 34  
 <211> 37  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: consensus  
 sequence

<400> 34  
 Thr Lys Gly Cys Leu Thr Cys Gly Cys Thr Glu Pro Pro Val Cys Thr  
 1 5 10 15

Tyr Thr Val Leu Pro Cys Pro Gly Val Asp Pro Thr Tyr Pro Val Ala  
 20 25 30

Cys Asp Cys Cys Thr  
 35

<210> 35  
 <211> 85

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<212> PRT  
<213> Homo sapiens

<400> 35

Thr Val Ala Val Glu Lys Glu Gly Cys Pro Lys Cys Leu Val Leu Gln  
1 5 10 15

Thr Thr Ile Cys Ser Gly His Cys Leu Thr Lys Glu Pro Val Tyr Lys  
20 25 30

Ser Pro Phe Ser Thr Val Tyr Gln His Val Cys Thr Tyr Arg Asp Val  
35 40 45

Arg Tyr Glu Thr Val Arg Leu Pro Asp Cys Pro Pro Gly Val Asp Pro  
50 55 60

His Ile Thr Tyr Pro Val Ala Leu Ser Cys Asp Cys Ser Leu Cys Thr  
65 70 75 80

Met Asp Thr Ser Asp  
85

<210> 36

<211> 117

<212> PRT

<213> Clupea pallasii

<400> 36

Pro Met Ala Leu Leu Leu Leu Ala Gly Tyr Gly Cys Val Leu Gly Ala  
1 5 10 15

Ser Ser Gly Asn Leu Arg Thr Phe Val Gly Cys Ala Val Arg Glu Phe  
20 25 30

Thr Phe Leu Ala Lys Lys Pro Gly Cys Arg Gly Leu Arg Ile Thr Thr  
35 40 45

Asp Ala Cys Trp Gly Arg Cys Glu Thr Trp Glu Lys Pro Ile Leu Glu  
50 55 60

Pro Pro Tyr Ile Glu Ala His His Arg Val Cys Thr Tyr Asn Glu Thr  
65 70 75 80

Lys Gln Val Thr Val Lys Leu Pro Asn Cys Ala Pro Gly Val Asp Pro  
85 90 95

Phe Tyr Thr Tyr Pro Val Ala Ile Arg Cys Asp Cys Gly Ala Cys Ser

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100

105

110

Thr Ala Thr Thr Glu  
115

&lt;210&gt; 37

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: consensus  
sequence

&lt;400&gt; 37

Pro Leu Leu Cys Val Leu Ala Asn Leu Cys Thr Lys Gly Cys Arg Leu  
1 5 10 15

Thr Cys Gly Cys Thr Glu Pro Pro Val Cys Thr Tyr Thr Leu Pro Cys  
20 25 30

Ala Gly Val Asp Pro Thr Tyr Pro Val Ala Cys Cys Cys Ser Thr  
35 40 45

&lt;210&gt; 38

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 38

Pro Glu Cys Thr Ile Leu Leu Leu Leu Cys Met Cys Val Leu Ala Val  
1 5 10 15

Pro Ala Gln Cys Phe Asn Leu Gln Pro Cys Val Leu Val Asn Glu Thr  
20 25 30

Val Ser Val Glu Lys Glu Gly Cys Pro Arg Cys Leu Val Phe Arg Thr  
35 40 45

Thr Ile Cys Ser Gly His Cys Pro Thr Lys Glu Pro Val Tyr Lys Ser  
50 55 60

Pro Phe Ser Val Val Asn Gln His Val Cys Thr Tyr Gly Asn Phe Arg  
65 70 75 80

Tyr Glu Thr Ile Arg Leu Pro Asp Cys Ala Asp Gly Val Asp Pro Leu

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85

90

95

Val Thr Tyr Pro Val Ala Leu Ser Cys Glu Cys Ser Leu Cys Ser Met  
 100 105 110

Asp Thr Ser Asp  
 115

&lt;210&gt; 39

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 39

Ser Ser Gly Asn Leu Arg Thr Phe Val Gly Cys Ala Val Arg Glu Phe  
 1 5 10 15

Thr Phe Leu Ala Lys Lys Pro Gly Cys Arg Gly Leu Arg Ile Thr Thr  
 20 25 30

Asp Ala Cys Trp Gly Arg Cys Glu Thr Trp Glu Lys Pro Ile Leu Glu  
 35 40 45

Pro Pro Tyr Ile Glu Ala His His Arg Val Cys Thr Tyr Asn Glu Thr  
 50 55 60

Lys Gln Val Thr Val Lys Leu Pro Asn Cys Ala Pro Gly Val Asp Pro  
 65 70 75 80

Phe Tyr Thr Tyr Pro Val Ala Ile Arg Cys Asp Cys Gly Ala Cys Ser  
 85 90 95

Thr Ala Thr Thr Glu  
 100

&lt;210&gt; 40

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 40

Ser Gly Leu Arg Cys Thr Ala Lys Cys Thr Thr Cys Gly Cys Pro Pro  
 1 5 10 15

Pro Arg Val Cys Thr Tyr Glu Val Leu Pro Cys Pro Gly Val Asp Pro  
 20 25 30

Pro Val Ala Cys Cys Gly Cys Thr  
 35 40

<210> 41  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 41  
 Ser Arg Gly Pro Leu Arg Pro Leu Cys Gln Pro Ile Asn Ala Thr Leu  
 1 5 10 15

Ala Ala Glu Lys Glu Ala Cys Pro Val Cys Ile Thr Phe Thr Thr Ser  
 20 25 30

Ile Cys Ala Gly Tyr Cys Pro Ser Met Lys Arg Val Leu Pro Val Ile  
 35 40 45

Leu Pro Pro Met Pro Gln Arg Val Cys Thr Tyr His Glu Leu Arg Phe  
 50 55 60

Ala Ser Val Arg Leu Pro Gly Cys Pro Pro Gly Val Asp Pro Met Val  
 65 70 75 80

Ser Phe Pro Val Ala Leu Ser Cys His Cys Gly Pro Cys Arg Leu Ser  
 85 90 95

Ser Thr Asp

<210> 42  
 <211> 116  
 <212> PRT  
 <213> Equus caballus

<400> 42  
 Met Ala Leu Leu Leu Leu Ala Gly Tyr Gly Cys Val Leu Gly Ala Ser  
 1 5 10 15

Ser Gly Asn Leu Arg Thr Phe Val Gly Cys Ala Val Arg Glu Phe Thr  
 20 25 30

Phe Leu Ala Lys Lys Pro Gly Cys Arg Gly Leu Arg Ile Thr Thr Asp  
 35 40 45

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Ala Cys Trp Gly Arg Cys Glu Thr Trp Glu Lys Pro Ile Leu Glu Pro  
50 55 60

Pro Tyr Ile Glu Ala His His Arg Val Cys Thr Tyr Asn Glu Thr Lys  
65 70 75 80

Gln Val Thr Val Lys Leu Pro Asn Cys Ala Pro Gly Val Asp Pro Phe  
85 90 95

Tyr Thr Tyr Pro Val Ala Ile Arg Cys Asp Cys Gly Ala Cys Ser Thr  
100 105 110

Ala Thr Thr Glu  
115

<210> 43

<211> 43

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: consensus  
sequence

<400> 43

Leu Leu Gly Val Ala Ser Gly Leu Arg Cys Thr Ala Lys Cys Thr Thr  
1 5 10 15

Cys Gly Cys Pro Ala Val Cys Thr Tyr Glu Leu Pro Cys Pro Gly Val  
20 25 30

Asp Pro Pro Val Ala Cys Cys Gly Cys Thr Thr  
35 40

<210> 44

<211> 113

<212> PRT

<213> Homo sapiens

<400> 44

Leu Leu Leu Trp Met Leu Leu Ser Val Gly Gly Val Trp Ala Ser Arg  
1 5 10 15

Gly Pro Leu Arg Pro Leu Cys Arg Pro Ile Asn Ala Thr Leu Ala Ala  
20 25 30

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Glu Lys Glu Ala Cys Pro Ile Cys Ile Thr Phe Thr Thr Ser Ile Cys  
 35 40 45

Ala Gly Tyr Cys Pro Ser Met Val Arg Val Met Pro Ala Ala Leu Pro  
 50 55 60

Ala Ile Pro Gln Pro Val Cys Thr Tyr Arg Glu Leu Arg Phe Ala Ser  
 65 70 75 80

Ile Arg Leu Pro Gly Cys Pro Pro Gly Val Asp Pro Met Val Ser Phe  
 85 90 95

Pro Val Ala Leu Ser Cys His Cys Gly Pro Cys Gln Ile Lys Thr Thr  
 100 105 110

Asp

<210> 45

<211> 144

<212> PRT

<213> Homo sapiens

<400> 45

Met Gly Thr Pro Val Lys Ile Leu Val Val Arg Asn His Ile Leu Phe  
 1 5 10 15

Ser Val Val Val Leu Leu Ala Val Ala Gln Ser Ser Tyr Leu Pro Pro  
 20 25 30

Cys Glu Pro Val Asn Glu Thr Val Ala Val Glu Lys Glu Gly Cys Pro  
 35 40 45

Lys Cys Leu Val Leu Gln Thr Thr Ile Cys Ser Gly His Cys Leu Thr  
 50 55 60

Lys Glu Pro Val Tyr Lys Ser Pro Phe Ser Thr Val Tyr Gln His Val  
 65 70 75 80

Cys Thr Tyr Arg Asp Val Arg Tyr Glu Thr Val Arg Leu Pro Asp Cys  
 85 90 95

Pro Pro Gly Val Asp Pro His Ile Thr Tyr Pro Val Ala Leu Ser Cys  
 100 105 110

Asp Cys Ser Leu Cys Thr Met Asp Thr Ser Asp Cys Thr Ile Glu Ser  
 115 120 125



Leu Gln Pro Asp Phe Cys Met Ser Gln Arg Glu Asp Phe Leu Val Tyr  
 130 135 140

<210> 46  
 <211> 140  
 <212> PRT  
 <213> Carassius auratus

<400> 46  
 Met Gly Thr Pro Val Lys Ile Leu Val Val Leu Phe Ser Val Ile Val  
 1 5 10 15

Leu Leu Ala Val Ala Gln Ser Ser Tyr Leu Pro Pro Cys Glu Pro Val  
 20 25 30

Asn Glu Thr Val Ala Val Glu Lys Glu Gly Cys Pro Lys Cys Leu Val  
 35 40 45

Leu Gln Thr Thr Ile Cys Ser Gly His Cys Leu Thr Lys Glu Pro Val  
 50 55 60

Tyr Lys Ser Pro Phe Ser Thr Val Tyr Gln His Val Cys Thr Tyr Arg  
 65 70 75 80

Asp Val Arg Tyr Glu Thr Val Arg Leu Pro Asp Cys Pro Pro Gly Val  
 85 90 95

Asp Pro His Ile Thr Tyr Pro Val Ala Leu Ser Cys Asp Cys Ser Leu  
 100 105 110

Cys Thr Met Asp Thr Ser Asp Cys Thr Ile Glu Ser Leu Gln Pro Asp  
 115 120 125

Phe Cys Met Ser Gln Arg Glu Asp Phe Leu Val Tyr  
 130 135 140

<210> 47  
 <211> 141  
 <212> PRT  
 <213> Bos taurus

<400> 47

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Met Glu Met Phe Gln Gly Leu Leu Leu Trp Leu Leu Leu Gly Val Ala  
 1 5 10 15

Gly Val Trp Ala Ser Arg Gly Pro Leu Arg Pro Leu Cys Gln Pro Ile  
 20 25 30

Asn Ala Thr Leu Ala Ala Glu Lys Glu Ala Cys Pro Val Cys Ile Thr  
 35 40 45

Phe Thr Thr Ser Ile Cys Ala Gly Tyr Cys Pro Ser Met Lys Arg Val  
 50 55 60

Leu Pro Val Ile Leu Pro Pro Met Pro Gln Arg Val Cys Thr Tyr His  
 65 70 75 80

Glu Leu Arg Phe Ala Ser Val Arg Leu Pro Gly Cys Pro Pro Gly Val  
 85 90 95

Asp Pro Met Val Ser Phe Pro Val Ala Leu Ser Cys His Cys Gly Pro  
 100 105 110

Cys Arg Leu Ser Ser Thr Asp Cys Gly Gly Pro Arg Thr Gln Pro Leu  
 115 120 125

Ala Cys Asp His Pro Pro Leu Pro Asp Ile Leu Phe Leu  
 130 135 140

<210> 48  
 <211> 141  
 <212> PRT  
 <213> Ovis aries

<400> 48

Met Glu Met Leu Gln Gly Leu Leu Leu Trp Leu Leu Leu Gly Val Ala  
 1 5 10 15

Gly Val Trp Ala Ser Arg Gly Pro Leu Arg Pro Leu Cys Gln Pro Ile  
 20 25 30

Asn Ala Thr Leu Ala Ala Glu Lys Glu Ala Cys Pro Val Cys Ile Thr  
 35 40 45

Phe Thr Thr Ser Ile Cys Ala Gly Tyr Cys Leu Ser Met Lys Arg Val  
 50 55 60

Leu Pro Val Ile Leu Pro Pro Met Pro Gln Arg Val Cys Thr Tyr His  
 65 70 75 80

Glu Leu Arg Phe Ala Ser Val Arg Leu Pro Gly Cys Pro Pro Gly Val  
85 90 95

Asp Pro Met Val Ser Phe Pro Val Ala Leu Ser Cys His Cys Gly Pro  
100 105 110

Cys Arg Leu Ser Ser Thr Asp Cys Gly Gly Pro Arg Thr Gln Pro Leu  
115 120 125

Ala Cys Asp His Pro Pro Leu Pro Asp Ile Leu Phe Leu  
130 135 140

<210> 49

<211> 230

<212> PRT

<213> Homo sapiens

<400> 49

Met Lys Leu Ala Phe Leu Phe Leu Gly Pro Met Ala Leu Leu Leu Leu  
1 5 10 15

Ala Gly Tyr Gly Cys Val Leu Gly Ala Ser Ser Gly Asn Leu Arg Thr  
20 25 30

Phe Val Gly Cys Ala Val Arg Glu Phe Thr Phe Leu Ala Lys Lys Pro  
35 40 45

Gly Cys Arg Gly Leu Arg Ile Thr Thr Asp Ala Cys Trp Gly Arg Cys  
50 55 60

Glu Thr Trp Glu Lys Pro Ile Leu Glu Pro Pro Tyr Ile Glu Ala His  
65 70 75 80

His Arg Val Cys Thr Tyr Asn Glu Thr Lys Gln Val Thr Val Lys Leu  
85 90 95

Pro Asn Cys Ala Pro Gly Val Asp Pro Phe Tyr Thr Tyr Pro Val Ala  
100 105 110

Ile Arg Cys Asp Cys Gly Ala Cys Ser Thr Ala Thr Thr Glu Leu Arg  
115 120 125

Leu Met Pro Gly Glu Ala Ala Val Ala Leu Gly Phe Trp Cys Gln Arg  
130 135 140

Arg Arg Gln Gly Ser Arg Thr Thr Gly Thr Arg Trp Arg His Ala Ala

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145                      150                      155                      160

Val Arg Asp Lys Val Ser Leu Leu Lys Ala Val Asp Gly Trp Asn Gly  
                                  165                                   170                                   175

Leu Leu Gly Asp Pro Ala Ser Ser Gln Gly Leu Ser Ala Ser Ser Cys  
                                  180                                   185                                   190

Thr Pro Val Phe Pro Leu Ala Phe Gln Ile Asp Ser Ala Ser Gly Lys  
                                  195                                   200                                   205

Val Gly Asn Phe Ser Ser Lys Gln Thr Phe Ile Phe Ser Ser Ala Glu  
                                  210                                   215                                   220

Ile Thr Leu Gly Gly Thr  
                                  225                                   230

<210> 50  
 <211> 215  
 <212> DNA  
 <213> Equus caballus

<400> 50  
 aggatgtgaa cattgaggaa ctgtacaaag gtggtgaaga ggccacacgc ttcaccttct 60  
 tccagagcag ctacaggtcc gccttcaggc ttgaggctgc tgcctggcct ggctgggtcc 120  
 tgtgtggccc ggcagagccc cagcagccag tacagctcac caaggagagt gagccctcag 180  
 cccgtaccaa gttttacttt gaacagagct ggtag 215

<210> 51  
 <211> 147  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: consensus  
                                  sequence

<400> 51  
 agggtaacat gactgcaaag gagagcacgc ttcaccttct ccgcacggcc cccagcttg 60  
 agctgcgcct gcctggctgg ttccttgccg agagcacgcc gtcagctcac caaagagagc 120  
 ctcagtacca agtttactta agcgtag 147

<210> 52  
 <211> 218  
 <212> DNA

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<213> Homo sapiens

<400> 52

aggcagttaa catcactgac ctgagcaaga acaaggagga gaacaagcgc ttcaccttca 60  
tccgctcaaa cagtggcccc accaccagct tcgagtctgc cgcctgccct ggctgggtcc 120  
tctgcacggc gcaggaggca gaccggccccg tcagcctcac caacaagccc aaagagtcct 180  
tcatggtcac caagttctac ttccaggagg accagtag 218

<210> 53

<211> 149

<212> PRT

<213> Mus musculus

<400> 53

Cys Phe Arg Ile Lys Tyr Ala Asp Gln Lys Ala Leu Tyr Thr Arg Asp  
1 5 10 15  
Gly Gln Leu Leu Val Gly Asp Pro Val Ala Asp Asn Cys Cys Ala Glu  
20 25 30  
Lys Ile Cys Ile Leu Pro Asn Arg Gly Leu Ala Arg Thr Lys Val Pro  
35 40 45  
Ile Phe Leu Gly Ile Gln Gly Gly Ser Arg Cys Leu Ala Cys Val Glu  
50 55 60  
Thr Glu Glu Gly Pro Ser Leu Gln Leu Glu Pro Ser Thr Leu Pro Pro  
65 70 75 80  
Gln Asp Val Asn Ile Glu Glu Leu Tyr Lys Gly Gly Glu Glu Ala Thr  
85 90 95  
Arg Phe Thr Phe Phe Gln Ser Ser Ser Gly Ser Ala Phe Arg Leu Glu  
100 105 110  
Ala Ala Ala Trp Pro Gly Trp Phe Leu Cys Gly Pro Ala Glu Pro Gln  
115 120 125  
Gln Pro Val Gln Leu Thr Lys Glu Ser Glu Pro Ser Ala Arg Thr Lys  
130 135 140  
Phe Tyr Phe Glu Gln  
145

<210> 54

<211> 70

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: consensus  
sequence

<400> 54

Cys Phe Arg Lys Lys Leu Tyr Gln Leu Leu Gly Ala Glu Ile Pro Asn  
1 5 10 15

Arg Leu Pro Leu Gly Gln Gly Gly Ser Cys Leu Cys Thr Glu Gly Pro  
20 25 30

Leu Leu Glu Pro Val Asn Ile Glu Leu Tyr Gly Glu Phe Thr Phe Gly  
35 40 45

Glu Ala Ala Pro Gly Trp Phe Leu Cys Glu Gln Pro Val Leu Thr Glu  
50 55 60

Ala Thr Phe Tyr Phe Gln  
65 70

<210> 55

<211> 146

<212> PRT

<213> Homo sapiens

<400> 55

Cys Phe Arg Met Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn  
1 5 10 15

Asn Gln Leu Leu Ala Gly Gly Leu His Ala Glu Lys Val Ile Lys Gly  
20 25 30

Glu Glu Ile Ser Val Val Pro Asn Arg Ala Leu Asp Ala Ser Leu Ser  
35 40 45

Pro Val Ile Leu Gly Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly  
50 55 60

Thr Glu Lys Gly Pro Ile Leu Lys Leu Glu Pro Val Asn Ile Met Glu  
65 70 75 80

Leu Tyr Leu Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg  
85 90 95

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Asp Met Gly Leu Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp  
 100 105 110

Phe Leu Cys Thr Ser Pro Glu Ala Asp Gln Pro Val Arg Leu Thr Gln  
 115 120 125

Ile Pro Glu Asp Pro Ala Trp Asp Ala Pro Ile Thr Asp Phe Tyr Phe  
 130 135 140

Gln Gln  
 145

<210> 56  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 56  
 Cys Phe Arg Ile Lys Tyr Ala Asp Gln Lys Ala Leu Tyr Thr Arg Asp  
 1 5 10 15

Gly Gln Leu Leu Val Gly Asp Pro Val Ala Asp Asn Cys Cys Ala Glu  
 20 25 30

Lys Ile Cys Ile Leu Pro Asn Arg Gly Leu Ala Arg Thr Lys Val Pro  
 35 40 45

Ile Phe Leu Gly Ile Gln Gly Gly Ser Arg Cys Leu Ala Cys Val Glu  
 50 55 60

Thr Glu Glu Gly Pro Ser Leu Gln Leu Glu Pro Ser Thr Leu Pro Pro  
 65 70 75 80

Gln Asp Val Asn Ile Glu Glu Leu Tyr Lys Gly Gly Glu Glu Ala Thr  
 85 90 95

Arg Phe Thr Phe Phe Gln Ser Ser Ser Gly Ser Ala Phe Arg Leu Glu  
 100 105 110

Ala Ala Ala Trp Pro Gly Trp Phe Leu Cys Gly Pro Ala Glu Pro Gln  
 115 120 125

Gln Pro Val Gln Leu Thr Lys Glu Ser Glu Pro Ser Ala Arg Thr Lys  
 130 135 140

Phe Tyr Phe Glu Gln  
 145

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<210> 57  
 <211> 67  
 <212> PRT  
 <213> Homo sapiens

<400> 57  
 Cys Phe Arg Lys Lys Leu Tyr Gln Leu Leu Gly Ala Glu Ile Pro Asn  
     1                    5                    10                    15  
 Arg Leu Pro Leu Gly Gln Gly Gly Ser Cys Leu Cys Glu Pro Leu Leu  
                     20                    25                    30  
 Glu Pro Val Asn Ile Glu Leu Tyr Gly Glu Phe Thr Phe Gly Glu Ala  
                     35                    40                    45  
 Ala Pro Gly Trp Phe Leu Cys Glu Gln Pro Val Leu Thr Glu Thr Phe  
                     50                    55                    60  
 Tyr Phe Gln  
     65

<210> 58  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 58  
 Cys Phe Arg Met Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn  
     1                    5                    10                    15  
 Asn Gln Leu Leu Ala Gly Gly Leu His Ala Gly Lys Val Ile Lys Gly  
                     20                    25                    30  
 Glu Glu Ile Ser Val Val Pro Asn Arg Trp Leu Asp Ala Ser Leu Ser  
                     35                    40                    45  
 Pro Val Ile Leu Gly Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly  
                     50                    55                    60  
 Val Gly Gln Glu Pro Thr Leu Thr Leu Glu Pro Val Asn Ile Met Glu  
     65                    70                    75                    80  
 Leu Tyr Leu Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg  
                     85                    90                    95

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Asp Met Gly Leu Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp  
 100 105 110

Phe Leu Cys Thr Val Pro Glu Ala Asp Gln Pro Val Arg Leu Thr Gln  
 115 120 125

Leu Pro Glu Asn Gly Gly Trp Asn Ala Pro Ile Thr Asp Phe Tyr Phe  
 130 135 140

Gln Gln  
 145

<210> 59

<211> 173

<212> PRT

<213> Homo sapiens

<400> 59

Asp Asn His Thr Met Arg Gly Thr Pro Gly Asp Ala Asp Gly Gly Gly  
 1 5 10 15

Arg Ala Val Tyr Gln Ser Met Cys Lys Pro Ile Thr Gly Thr Ile Asn  
 20 25 30

Asp Leu Asn Gln Gln Val Trp Thr Leu Gln Gly Gln Asn Leu Val Ala  
 35 40 45

Val Pro Arg Ser Asp Ser Val Thr Pro Val Thr Val Ala Val Ile Thr  
 50 55 60

Cys Lys Tyr Pro Glu Ala Leu Glu Gln Gly Arg Gly Asp Pro Ile Tyr  
 65 70 75 80

Leu Gly Ile Gln Asn Pro Glu Met Cys Leu Tyr Cys Glu Lys Val Gly  
 85 90 95

Glu Gln Pro Thr Leu Gln Leu Lys Glu Gln Lys Ile Met Asp Leu Tyr  
 100 105 110

Gly Gln Pro Glu Pro Val Lys Pro Phe Leu Phe Tyr Arg Ala Lys Thr  
 115 120 125

Gly Arg Thr Ser Thr Leu Glu Ser Val Ala Phe Pro Asp Trp Phe Ile  
 130 135 140

Ala Ser Ser Lys Arg Asp Gln Pro Ile Ile Leu Thr Ser Glu Leu Gly  
 145 150 155 160

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Lys Ser Tyr Asn Thr Ala Phe Glu Leu Asn Ile Asn Asp  
 165 170

<210> 60  
 <211> 212  
 <212> PRT  
 <213> Homo sapiens

<400> 60  
 Asp Asn His Thr Met Arg Gly Thr Pro Gly Asp Ala Asp Gly Gly Gly  
 1 5 10 15

Arg Ala Val Tyr Gln Ser Ser Glu Ser Asn Ala Val Gly Met Gly Leu  
 20 25 30

Trp Arg Leu Arg Pro Ser Ala Leu Thr Leu Ser Pro Val Glu Ala Pro  
 35 40 45

Ala Phe Ser Ala Pro Leu Cys Thr Leu Pro Phe Pro Pro Val Cys Lys  
 50 55 60

Pro Ile Thr Gly Thr Ile Asn Asp Leu Asn Gln Gln Val Trp Thr Leu  
 65 70 75 80

Gln Gly Gln Asn Leu Val Ala Val Pro Arg Ser Asp Ser Val Thr Pro  
 85 90 95

Val Thr Val Ala Val Ile Thr Cys Lys Tyr Pro Glu Ala Leu Glu Gln  
 100 105 110

Gly Arg Gly Asp Pro Ile Tyr Leu Gly Ile Gln Asn Pro Glu Met Cys  
 115 120 125

Leu Tyr Cys Glu Lys Val Gly Glu Gln Pro Thr Leu Gln Leu Lys Glu  
 130 135 140

Gln Lys Ile Met Asp Leu Tyr Gly Gln Pro Glu Pro Val Lys Pro Phe  
 145 150 155 160

Leu Phe Tyr Arg Ala Lys Thr Gly Arg Thr Ser Thr Leu Glu Ser Val  
 165 170 175

Ala Phe Pro Asp Trp Phe Ile Ala Ser Ser Lys Arg Asp Gln Pro Ile  
 180 185 190

Ile Leu Thr Ser Glu Leu Gly Lys Ser Tyr Asn Thr Ala Phe Glu Leu

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195

200

205

Asn Ile Asn Asp  
210

&lt;210&gt; 61

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 61

Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala Leu  
1 5 10 15

Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu His  
20 25 30

Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn Arg  
35 40 45

Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly Gly  
50 55 60

Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu Pro Thr Leu Thr Leu  
65 70 75 80

Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser Lys  
85 90 95

Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe Glu  
100 105 110

Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Val Pro Glu Ala Asp  
115 120 125

Gln Pro Val Arg Leu Thr Gln Leu Pro Glu Asn Gly Gly Trp Asn Ala  
130 135 140

Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp  
145 150 155

&lt;210&gt; 62

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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<400> 62

Met Ala Leu Ala Asp Leu Tyr Glu Glu Gly Gly Gly Gly Gly Glu  
1 5 10 15

Gly Glu Asp Asn Ala Asp Ser Lys Glu Thr Ile Cys Arg Pro Ser Gly  
20 25 30

Arg Lys Ser Ser Lys Met Gln Ala Phe Arg Ile Trp Asp Val Asn Gln  
35 40 45

Lys Thr Phe Tyr Leu Arg Asn Asn Gln Leu Val Ala Gly Tyr Leu Gln  
50 55 60

Gly Pro Asn Val Asn Leu Glu Glu Lys Ile Asp Val Val Pro Ile Glu  
65 70 75 80

Pro His Ala Leu Phe Leu Gly Ile His Gly Gly Lys Met Cys Leu Ser  
85 90 95

Cys Val Lys Ser Gly Asp Glu Thr Arg Leu Gln Leu Glu Ala Val Asn  
100 105 110

Ile Thr Asp Leu Ser Glu Asn Arg Lys Gln Asp Lys Arg Phe Ala Phe  
115 120 125

Ile Arg Ser Asp Ser Gly Pro Thr Thr Ser Phe Glu Ser Ala Ala Cys  
130 135 140

Pro Gly Trp Phe Leu Cys Thr Ala Met Glu Ala Asp Gln Pro Val Ser  
145 150 155 160

Leu Thr Asn Met Pro Asp Glu Gly Val Met Val Thr Lys Phe Tyr Phe  
165 170 175

Gln Glu Asp Glu  
180

<210> 63

<211> 158

<212> PRT

<213> Homo sapiens

<400> 63

Gly Pro Ser Ala Leu Ser Tyr Cys Phe Arg Ile Lys Tyr Ala Asp Gln  
1 5 10 15

Lys Ala Leu Tyr Thr Arg Asp Gly Gln Leu Leu Val Gly Asp Pro Val

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20	25	30
Ala Asp Asn Cys Cys Ala Glu Lys Ile Cys Ile Leu Pro Asn Arg Gly		
35	40	45
Leu Ala Arg Thr Lys Val Pro Ile Phe Leu Gly Ile Gln Gly Gly Ser		
50	55	60
Arg Cys Leu Ala Cys Val Glu Thr Glu Glu Gly Pro Ser Leu Gln Leu		
65	70	75 80
Glu Pro Ser Thr Leu Pro Pro Gln Asp Val Asn Ile Glu Glu Leu Tyr		
85	90	95
Lys Gly Gly Glu Glu Ala Thr Arg Phe Thr Phe Phe Gln Ser Ser Ser		
100	105	110
Gly Ser Ala Phe Arg Leu Glu Ala Ala Ala Trp Pro Gly Trp Phe Leu		
115	120	125
Cys Gly Pro Ala Glu Pro Gln Gln Pro Val Gln Leu Thr Lys Glu Ser		
130	135	140
Glu Pro Ser Ala Arg Thr Lys Phe Tyr Phe Glu Gln Ser Trp		
145	150	155
<210> 64		
<211> 266		
<212> PRT		
<213> Sus scrofa		
<400> 64		
Met Ala Thr Val Pro Glu Pro Ile Asn Glu Val Met Ala Tyr Tyr Ser		
1	5	10 15
Asp Glu Asn Glu Leu Leu Phe Glu Val Asp Gly Pro Lys Gln Met Lys		
20	25	30
Ser Cys Thr Gln His Leu Asp Leu Gly Ser Met Gly Asp Gly Asn Ile		
35	40	45
Gln Leu Gln Ile Ser His Gln Leu Tyr Asn Lys Ser Phe Arg Gln Val		
50	55	60
Val Ser Val Ile Val Ala Met Glu Lys Leu Arg Ser Arg Ala Tyr Glu		
65	70	75 80

His Val Phe Arg Asp Asp Asp Leu Arg Ser Ile Leu Ser Phe Ile Phe  
85 90 95

Glu Glu Glu Pro Val Ile Phe Glu Thr Ser Ser Asp Glu Leu Leu Cys  
100 105 110

Asp Ala Ala Val Gln Ser Val Lys Cys Lys Leu Gln Asp Arg Glu Gln  
115 120 125

Lys Ser Leu Val Leu Asp Ser Pro Cys Val Leu Lys Ala Leu His Leu  
130 135 140

Leu Ser Gln Glu Met Ser Arg Glu Val Val Phe Cys Met Ser Phe Val  
145 150 155 160

Gln Gly Glu Glu Arg Asp Asn Lys Ile Pro Val Ala Leu Gly Ile Arg  
165 170 175

Asp Lys Asn Leu Tyr Leu Ser Cys Val Lys Lys Gly Asp Thr Pro Thr  
180 185 190

Leu Gln Leu Glu Glu Val Asp Pro Lys Val Tyr Pro Lys Arg Asn Met  
195 200 205

Glu Lys Arg Phe Val Phe Tyr Lys Thr Glu Ile Lys Asn Thr Val Glu  
210 215 220

Phe Glu Ser Val Leu Tyr Pro Asn Trp Tyr Ile Ser Thr Ser Gln Ile  
225 230 235 240

Glu Glu Lys Pro Val Phe Leu Gly Arg Phe Arg Gly Gly Gln Asp Ile  
245 250 255

Thr Asp Phe Arg Met Glu Thr Leu Ser Pro  
260 265

<210> 65

<211> 329

<212> DNA

<213> Sus scrofa

<400> 65

catttaatag cctgtagaga cacagaattc agtgacaagg aaaagggttaa tatgggtttac 60  
ctgggaatca agggaaaaga tctctgtctc ttctgtgcag aaattcaggg caagcctact 120  
ttgcagctta agggaaaaaaa tatcatggac ctgtatgtgg agaagaaagc acagaagccc 180  
tttctctttt tccacaataa agaaggctcc acttctgtct ttcagtcagt ctcttaccct 240  
ggctgggttca tagccacctc caccacatca ggacagccca tctttctcac caaggagaga 300

ggcataacta ataacactaa cttctactt

329

<210> 66

<211> 197

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: consensus  
sequence

<400> 66

catatactga gagaaagatg tgcgagtatt gttcctggga tcaggaactt gcttctgtga 60  
atcggagtat cagtagaaaa tcagacctga gaagagcaaa agccttcttt cccaagggcc 120  
caccctttag tcagcctcct ggctggttct cactcacaac agcagcctct caccaagagc 180  
ataacacaat tctactt 197

<210> 67

<211> 331

<212> DNA

<213> Homo sapiens

<400> 67

caaatactaa actggaagag aagatagatg tgggtgcctgt tgagcctcat tttgtgttcc 60  
tggggatcca tggaggggaag ctgtgcctgt cctgtgtcaa gtctggtgat gagatgaagc 120  
tcagttgga cgcagttaac atcacagacc tgagaaagaa cagcgagcag gacaagcgct 180  
tcaccttcat ccgctccgac agtggcccca ccaccagctt tgagtcagcc gcctgtcctg 240  
gctggttctt ctgcaactgca ctagaggcag accagcctgt tggcctcacc aacacgccca 300  
aagcagccgt caaggtcacc aagttctact t 331

<210> 68

<211> 149

<212> PRT

<213> Homo sapiens

<400> 68

Pro Lys Ser Tyr Ala Ile Arg Asp Ser Arg Gln Met Val Trp Val Leu  
1 5 10 15

Ser Gly Asn Ser Leu Ile Ala Ala Pro Leu Ser Arg Ser Ile Lys Pro  
20 25 30

Val Thr Leu His Leu Ile Ala Cys Arg Asp Thr Glu Phe Ser Asp Lys  
35 40 45

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Glu Lys Gly Asn Met Val Tyr Leu Gly Ile Lys Gly Lys Asp Leu Cys  
50 55 60

Leu Phe Cys Ala Glu Ile Gln Gly Lys Pro Thr Leu Gln Leu Lys Glu  
65 70 75 80

Lys Asn Ile Met Asp Leu Tyr Val Glu Lys Lys Ala Gln Lys Pro Phe  
85 90 95

Leu Phe Phe His Asn Lys Glu Gly Ser Thr Ser Val Phe Gln Ser Val  
100 105 110

Ser Tyr Pro Gly Trp Phe Ile Ala Thr Ser Thr Thr Ser Gly Gln Pro  
115 120 125

Ile Phe Leu Thr Lys Glu Arg Gly Ile Thr Asn Asn Thr Asn Phe Tyr  
130 135 140

Leu Asp Ser Val Glu  
145

<210> 69

<211> 149

<212> PRT

<213> Homo sapiens

<400> 69

Pro Lys Ser Tyr Ala Ile Arg Asp Ser Arg Gln Met Val Trp Val Leu  
1 5 10 15

Ser Gly Asn Ser Leu Ile Ala Ala Pro Leu Ser Arg Ser Ile Lys Pro  
20 25 30

Val Thr Leu His Leu Ile Ala Cys Arg Asp Thr Glu Phe Ser Asp Lys  
35 40 45

Glu Lys Gly Asn Met Val Tyr Leu Gly Ile Lys Gly Lys Asp Leu Cys  
50 55 60

Leu Phe Cys Ala Glu Ile Gln Gly Lys Pro Thr Leu Gln Leu Lys Glu  
65 70 75 80

Lys Asn Ile Met Asp Leu Tyr Val Glu Lys Lys Ala Gln Lys Pro Phe  
85 90 95

Leu Phe Phe His Asn Lys Glu Gly Ser Thr Ser Val Phe Gln Ser Val  
100 105 110



Ser Tyr Pro Gly Trp Phe Ile Ala Thr Ser Thr Thr Ser Gly Gln Pro  
115 120 125

Ile Phe Leu Thr Lys Glu Arg Gly Ile Thr Asn Asn Thr Asn Phe Tyr  
130 135 140

Leu Asp Ser Val Glu  
145

<210> 70

<211> 149

<212> PRT

<213> Homo sapiens

<400> 70

Pro Lys Ser Tyr Ala Ile Arg Asp Ser Arg Gln Met Val Trp Val Leu  
1 5 10 15

Ser Gly Asn Ser Leu Ile Ala Ala Pro Leu Ser Arg Ser Ile Lys Pro  
20 25 30

Val Thr Leu His Leu Ile Ala Cys Arg Asp Thr Glu Phe Ser Asp Lys  
35 40 45

Glu Lys Gly Asn Met Val Tyr Leu Gly Ile Lys Gly Lys Asp Leu Cys  
50 55 60

Leu Phe Cys Ala Glu Ile Gln Gly Lys Pro Thr Leu Gln Leu Lys Glu  
65 70 75 80

Lys Asn Ile Met Asp Leu Tyr Val Glu Lys Lys Ala Gln Lys Pro Phe  
85 90 95

Leu Phe Phe His Asn Lys Glu Gly Ser Thr Ser Val Phe Gln Ser Val  
100 105 110

Ser Tyr Pro Gly Trp Phe Ile Ala Thr Ser Thr Thr Ser Gly Gln Pro  
115 120 125

Ile Phe Leu Thr Lys Glu Arg Gly Ile Thr Asn Asn Thr Asn Phe Tyr  
130 135 140

Leu Asp Ser Val Glu  
145

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<210> 71  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 71  
 Pro Lys Ser Tyr Ala Ile Arg Asp Ser Arg Gln Met Val Trp Val Leu  
 1 5 10 15

Ser Gly Asn Ser Leu Ile Ala Ala Pro Leu Ser Arg Ser Ile Lys Pro  
 20 25 30

Val Thr Leu His Leu Ile Ala Cys Arg Asp Thr Glu Phe Ser Asp Lys  
 35 40 45

Glu Lys Gly Asn Met Val Tyr Leu Gly Ile Lys Gly Lys Asp Leu Cys  
 50 55 60

Leu Phe Cys Ala Glu Ile Gln Gly Lys Pro Thr Leu Gln Leu Lys Glu  
 65 70 75 80

Lys Asn Ile Met Asp  
 85

<210> 72  
 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<400> 72  
 Pro Lys Ser Tyr Ala Ile Arg Asp Ser Arg Gln Met Val Trp Val Leu  
 1 5 10 15

Ser Gly Asn Ser Leu Ile Ala Ala Pro Leu Ser Arg Ser Ile Lys Pro  
 20 25 30

Val Thr Leu His Leu Ile Ala Cys Arg Asp Thr Glu Phe Ser Asp Lys  
 35 40 45

Glu Lys Gly Asn Met Val Tyr Leu Gly Ile Lys Gly Lys Asp Leu Cys  
 50 55 60

Leu Phe Cys Ala Glu Ile Gln Gly Lys Pro Thr Leu Gln Leu Lys Asp  
 65 70 75 80

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<210> 73  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 73  
 Pro Lys Ser Tyr Ala Ile Arg Asp Ser Arg Gln Met Val Trp Val Leu  
 1 5 10 15  
 Ser Gly Asn Ser Leu Ile Ala Ala Pro Leu Ser Arg Ser Ile Lys Pro  
 20 25 30  
 Val Thr Leu His Leu Ile Ala Cys Arg Asp Thr Glu Phe Ser Asp Lys  
 35 40 45  
 Glu Lys Gly Asn Met Val Tyr Leu Gly Ile Lys Gly Lys Asp Leu Cys  
 50 55 60  
 Leu Phe Cys Ala Glu Ile Gln Gly Lys Pro Thr Leu Gln Leu Lys Leu  
 65 70 75 80  
 Gln Gly Ser Gln Asp  
 85

<210> 74  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 74  
 Tyr Ala Ile Arg Asp Ser Arg Gln Met Val Trp Val Leu Ser Gly Asn  
 1 5 10 15  
 Ser Leu Ile Ala Ala Pro Leu Ser Arg Ser Ile Lys Pro Val Thr Leu  
 20 25 30  
 His Leu Ile Ala Cys Arg Asp Thr Glu Phe Ser Asp Lys Glu Lys Gly  
 35 40 45  
 Asn Met Val Tyr Leu Gly Ile Lys Gly Lys Asp Leu Cys Leu Phe Cys  
 50 55 60  
 Ala Glu Ile Gln Gly Lys Pro Thr Leu Gln Leu Lys Glu Lys Asn Ile  
 65 70 75 80

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Met Asp Leu Tyr Val Glu Lys Lys Ala Gln Lys Pro Phe Leu Phe Phe  
85 90 95

His Asn Lys Glu Gly Ser Thr Ser Val Phe Gln Ser Val Ser Tyr Pro  
100 105 110

Gly Trp Phe Ile Ala Thr Ser Thr Thr Ser Gly Gln Pro Ile Phe Leu  
115 120 125

Thr Lys Glu Arg Gly Ile Thr Asn Asn Thr Asn Phe Tyr Leu Asp Ser  
130 135 140

Val Glu  
145

<210> 75  
<211> 52  
<212> PRT  
<213> Homo sapiens

<400> 75  
Asp Ser Val Leu Asn Leu Ala Leu Lys Ile Asp Leu Gly Gly Cys Leu  
1 5 10 15

Cys Gln Pro Thr Leu Leu Asn Ile Met Leu Tyr Lys Lys Phe Phe Gly  
20 25 30

Thr Ser Phe Ser Tyr Pro Gly Trp Phe Thr Gln Pro Leu Thr Glu Gly  
35 40 45

Asn Thr Phe Tyr  
50

<210> 76  
<211> 147  
<212> PRT  
<213> Homo sapiens

<400> 76  
Phe Arg Met Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn Asn  
1 5 10 15

Gln Leu Leu Ala Gly Gly Leu His Ala Gly Lys Val Ile Lys Gly Glu  
20 25 30

Glu Ile Ser Val Val Pro Asn Arg Trp Leu Asp Ala Ser Leu Ser Pro

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35                      40                      45  
 Val Ile Leu Gly Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly Val  
     50                      55                      60  
 Gly Gln Glu Pro Thr Leu Thr Leu Glu Pro Val Asn Ile Met Glu Leu  
     65                      70                      75                      80  
 Tyr Leu Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg Asp  
                     85                      90                      95  
 Met Gly Leu Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp Phe  
                     100                      105                      110  
 Leu Cys Thr Val Pro Glu Ala Asp Gln Pro Val Arg Leu Thr Gln Leu  
                     115                      120                      125  
 Pro Glu Asn Gly Gly Trp Asn Ala Pro Ile Thr Asp Phe Tyr Phe Gln  
                     130                      135                      140  
 Gln Cys Asp  
     145  
  
 <210> 77  
 <211> 170  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 77  
 Met Gly Thr Pro Gly Leu Ala Leu His Ala Asp Trp Thr Val Ser Gln  
     1                      5                      10                      15  
 Asp Phe Cys Arg Thr Pro Lys Ser Tyr Ala Ile Arg Asp Ser Arg Gln  
                     20                      25                      30  
 Met Val Trp Val Leu Ser Gly Asn Ser Leu Ile Ala Ala Pro Leu Ser  
                     35                      40                      45  
 Arg Ser Ile Lys Pro Val Thr Leu His Leu Ile Ala Cys Arg Asp Thr  
                     50                      55                      60  
 Glu Phe Ser Asp Lys Glu Lys Gly Asn Met Val Tyr Leu Gly Ile Lys  
                     65                      70                      75                      80  
 Gly Lys Asp Leu Cys Leu Phe Cys Ala Glu Ile Gln Gly Lys Pro Thr  
                     85                      90                      95

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Leu Gln Leu Lys Glu Lys Asn Ile Met Asp Leu Tyr Val Glu Lys Lys  
 100 105 110

Ala Gln Lys Pro Phe Leu Phe Phe His Asn Lys Glu Gly Ser Thr Ser  
 115 120 125

Val Phe Gln Ser Val Ser Tyr Pro Gly Trp Phe Ile Ala Thr Ser Thr  
 130 135 140

Thr Ser Gly Gln Pro Ile Phe Leu Thr Lys Glu Arg Gly Ile Thr Asn  
 145 150 155 160

Asn Thr Asn Phe Tyr Leu Asp Ser Val Glu  
 165 170

<210> 78

<211> 212

<212> PRT

<213> Homo sapiens

<400> 78

Asp Asn His Thr Met Arg Gly Thr Pro Gly Asp Ala Asp Gly Gly Gly  
 1 5 10 15

Arg Ala Val Tyr Gln Ser Ser Glu Ser Asn Ala Val Gly Met Gly Leu  
 20 25 30

Trp Arg Leu Arg Pro Ser Ala Leu Thr Leu Ser Pro Val Glu Ala Pro  
 35 40 45

Ala Phe Ser Ala Pro Leu Cys Thr Leu Pro Phe Pro Pro Val Cys Lys  
 50 55 60

Pro Ile Thr Gly Thr Ile Asn Asp Leu Asn Gln Gln Val Trp Thr Leu  
 65 70 75 80

Gln Gly Gln Asn Leu Val Ala Val Pro Arg Ser Asp Ser Val Thr Pro  
 85 90 95

Val Thr Val Ala Val Ile Thr Cys Lys Tyr Pro Glu Ala Leu Glu Gln  
 100 105 110

Gly Arg Gly Asp Pro Ile Tyr Leu Gly Ile Gln Asn Pro Glu Met Cys  
 115 120 125

Leu Tyr Cys Glu Lys Val Gly Glu Gln Pro Thr Leu Gln Leu Lys Glu  
 130 135 140

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Gln Lys Ile Met Asp Leu Tyr Gly Gln Pro Glu Pro Val Lys Pro Phe  
145 150 155 160

Leu Phe Tyr Arg Ala Lys Thr Gly Arg Thr Ser Thr Leu Glu Ser Val  
165 170 175

Ala Phe Pro Asp Trp Phe Ile Ala Ser Ser Lys Arg Asp Gln Pro Ile  
180 185 190

Ile Leu Thr Ser Glu Leu Gly Lys Ser Tyr Asn Thr Ala Phe Glu Leu  
195 200 205

Asn Ile Asn Asp  
210

<210> 79  
<211> 180  
<212> PRT  
<213> Homo sapiens

<400> 79  
Met Ala Leu Ala Asp Leu Tyr Glu Glu Gly Gly Gly Gly Gly Glu  
1 5 10 15

Gly Glu Asp Asn Ala Asp Ser Lys Glu Thr Ile Cys Arg Pro Ser Gly  
20 25 30

Arg Lys Ser Ser Lys Met Gln Ala Phe Arg Ile Trp Asp Val Asn Gln  
35 40 45

Lys Thr Phe Tyr Leu Arg Asn Asn Gln Leu Val Ala Gly Tyr Leu Gln  
50 55 60

Gly Pro Asn Val Asn Leu Glu Glu Lys Ile Asp Val Val Pro Ile Glu  
65 70 75 80

Pro His Ala Leu Phe Leu Gly Ile His Gly Gly Lys Met Cys Leu Ser  
85 90 95

Cys Val Lys Ser Gly Asp Glu Thr Arg Leu Gln Leu Glu Ala Val Asn  
100 105 110

Ile Thr Asp Leu Ser Glu Asn Arg Lys Gln Asp Lys Arg Phe Ala Phe  
115 120 125

Ile Arg Ser Asp Ser Gly Pro Thr Thr Ser Phe Glu Ser Ala Ala Cys

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130

135

140

Pro Gly Trp Phe Leu Cys Thr Ala Met Glu Ala Asp Gln Pro Val Ser  
 145 150 155 160

Leu Thr Asn Met Pro Asp Glu Gly Val Met Val Thr Lys Phe Tyr Phe  
 165 170 175

Gln Glu Asp Glu  
 180

&lt;210&gt; 80

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 80

Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala Leu  
 1 5 10 15

Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu His  
 20 25 30

Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn Arg  
 35 40 45

Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly Gly  
 50 55 60

Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu Pro Thr Leu Thr Leu  
 65 70 75 80

Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser Lys  
 85 90 95

Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe Glu  
 100 105 110

Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Val Pro Glu Ala Asp  
 115 120 125

Gln Pro Val Arg Leu Thr Gln Leu Pro Glu Asn Gly Gly Trp Asn Ala  
 130 135 140

Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp  
 145 150 155

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<210> 81  
 <211> 266  
 <212> PRT  
 <213> Homo sapiens

<400> 81

Met Ala Thr Val Pro Glu Pro Ile Asn Glu Val Met Ala Tyr Tyr Ser  
 1 5 10 15

Asp Glu Asn Glu Leu Leu Phe Glu Val Asp Gly Pro Lys Gln Met Lys  
 20 25 30

Ser Cys Thr Gln His Leu Asp Leu Gly Ser Met Gly Asp Gly Asn Ile  
 35 40 45

Gln Leu Gln Ile Ser His Gln Leu Tyr Asn Lys Ser Phe Arg Gln Val  
 50 55 60

Val Ser Val Ile Val Ala Met Glu Lys Leu Arg Ser Arg Ala Tyr Glu  
 65 70 75 80

His Val Phe Arg Asp Asp Asp Leu Arg Ser Ile Leu Ser Phe Ile Phe  
 85 90 95

Glu Glu Glu Pro Val Ile Phe Glu Thr Ser Ser Asp Glu Leu Leu Cys  
 100 105 110

Asp Ala Ala Val Gln Ser Val Lys Cys Lys Leu Gln Asp Arg Glu Gln  
 115 120 125

Lys Ser Leu Val Leu Asp Ser Pro Cys Val Leu Lys Ala Leu His Leu  
 130 135 140

Leu Ser Gln Glu Met Ser Arg Glu Val Val Phe Cys Met Ser Phe Val  
 145 150 155 160

Gln Gly Glu Glu Arg Asp Asn Lys Ile Pro Val Ala Leu Gly Ile Arg  
 165 170 175

Asp Lys Asn Leu Tyr Leu Ser Cys Val Lys Lys Gly Asp Thr Pro Thr  
 180 185 190

Leu Gln Leu Glu Glu Val Asp Pro Lys Val Tyr Pro Lys Arg Asn Met  
 195 200 205

Glu Lys Arg Phe Val Phe Tyr Lys Thr Glu Ile Lys Asn Thr Val Glu  
 210 215 220

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Phe Glu Ser Val Leu Tyr Pro Asn Trp Tyr Ile Ser Thr Ser Gln Ile  
 225 230 235 240

Glu Glu Lys Pro Val Phe Leu Gly Arg Phe Arg Gly Gly Gln Asp Ile  
 245 250 255

Thr Asp Phe Arg Met Glu Thr Leu Ser Pro  
 260 265

<210> 82  
 <211> 244  
 <212> DNA  
 <213> Homo sapiens

<400> 82  
 tctacctggg cctgaatgga ctcaatctct gcctgatgtg tgctaaagtc ggggaccagc 60  
 ccacactgca gctgaagctt caggaaaagg atataatgga tttgtacaac caacccgagc 120  
 ctgtgaagtc ctttctcttc taccacagcc agagtggcag gaactccacc ttcgagtctg 180  
 tggttttccc tggctgggtc atcgctgtca gctctgaagg aggctgtcct ctcatectta 240  
 ccca 244

<210> 83  
 <211> 150  
 <212> DNA  
 <213> Homo sapiens

<400> 83  
 ttctctgggta tggaaacttg cctgtgtgta agtcgggaag actcagtgac cagaaataga 60  
 tgaaaaaccg agcgaagctt cttcccccaa gtggcaccca cttgagtcgg ctctctggctg 120  
 gttctctgcg cctaggagcc cttcctacca 150

<210> 84  
 <211> 238  
 <212> DNA  
 <213> Homo sapiens

<400> 84  
 tgttctctggg gatccatgga gggaagctgt gcctgtcctg tgtcaagtct ggtgatgaga 60  
 tgaagctcca gttggacgca gttaacatca cagacctgag aaagaacagc gagcaggaca 120  
 agcgcttcac cttcatccgc tccgacagtg gccccaccac cagctttgag tcagccgcct 180  
 gtctctggctg gttcctctgc actgcactag aggcagacca gcctgttggc ctcaccaa 238

<210> 85

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<211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 85

Asp Ile Asn His Arg Val Trp Val Leu Gln Asp Gln Thr Leu Ile Ala  
 1 5 10 15

Val Pro Arg Lys Val Phe Pro Val Thr Ile Ala Leu Ile Ser Cys Arg  
 20 25 30

His Val Glu Thr Leu Glu Lys Asp Arg Gly Asn Pro Ile Tyr Leu Gly  
 35 40 45

Leu Asn Gly Leu Asn Leu Cys Leu Met Cys Ala Lys Val Gly Asp Gln  
 50 55 60

Pro Thr Leu Gln Leu Lys Leu Gln Glu Lys Asp Ile Met Asp Leu Tyr  
 65 70 75 80

Asn Gln Pro Glu Pro Val Lys Ser Phe Leu Phe Tyr His Ser Gln Ser  
 85 90 95

Gly Arg Asn Ser Thr Phe Glu Ser Val Ala Phe Pro Gly Trp Phe Ile  
 100 105 110

Ala Val Ser Ser Glu Gly Gly Cys Pro Leu Ile Leu Thr Gln Glu Leu  
 115 120 125

Gly Lys  
 130

<210> 86  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 86

Asp Ile Asn His Arg Val Trp Val Leu Gln Asp Gln Thr Leu Ile Ala  
 1 5 10 15

Val Pro Arg Lys Pro Val Thr Ile Ala Leu Ile Ser Cys Arg His Val  
 20 25 30

Glu Thr Leu Glu Lys Asp Arg Gly Asn Pro Ile Tyr Leu Gly Leu Asn  
 35 40 45

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Gly Leu Asn Leu Cys Leu Met Cys Ala Lys Val Gly Asp Gln Pro Thr  
 50 55 60

Leu Gln Leu Lys Glu Lys Asp Ile Met Asp Leu Tyr Asn Gln Pro Glu  
 65 70 75 80

Pro Val Lys Ser Phe Leu Phe Tyr His Ser Gln Ser Gly Arg Asn Ser  
 85 90 95

Thr Phe Glu Ser Val Ala Phe Pro Gly Trp Phe Ile Ala Val Ser Ser  
 100 105 110

Glu Gly Gly Cys Pro Leu Ile Leu Thr Gln Glu Leu Gly Lys  
 115 120 125

<210> 87

<211> 130

<212> PRT

<213> Homo sapiens

<400> 87

Asp Ile Asn His Arg Val Trp Val Leu Gln Asp Gln Thr Leu Ile Ala  
 1 5 10 15

Val Pro Arg Lys Asp Arg Met Ser Pro Val Thr Ile Ala Leu Ile Ser  
 20 25 30

Cys Arg His Val Glu Thr Leu Glu Lys Asp Arg Gly Asn Pro Ile Tyr  
 35 40 45

Leu Gly Leu Asn Gly Leu Asn Leu Cys Leu Met Cys Ala Lys Val Gly  
 50 55 60

Asp Gln Pro Thr Leu Gln Leu Lys Glu Lys Asp Ile Met Asp Leu Tyr  
 65 70 75 80

Asn Gln Pro Glu Pro Val Lys Ser Phe Leu Phe Tyr His Ser Gln Ser  
 85 90 95

Gly Arg Asn Ser Thr Phe Glu Ser Val Ala Phe Pro Gly Trp Phe Ile  
 100 105 110

Ala Val Ser Ser Glu Gly Gly Cys Pro Leu Ile Leu Thr Gln Glu Leu  
 115 120 125

Gly Lys  
 130

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<210> 88  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 88  
 Asp Ile Asn His Arg Val Trp Val Leu Gln Asp Gln Thr Leu Ile Ala  
 1 5 10 15

Val Pro Arg Lys Val Phe Pro Val Thr Ile Ala Leu Ile Ser Cys Arg  
 20 25 30

His Val Glu Thr Leu Glu Lys Asp Arg Gly Asn Pro Ile Tyr Leu Gly  
 35 40 45

Leu Asn Gly Leu Asn Leu Cys Leu Met Cys Ala Lys Val Gly Asp Gln  
 50 55 60

Pro Thr Leu Gln Leu Lys Leu Gln Glu Lys Asp Ile Met Asp Leu Tyr  
 65 70 75 80

Asn Gln Pro Glu Pro Val Lys Ser Phe Leu Phe Tyr His Ser Gln Ser  
 85 90 95

Gly Arg Asn Ser Thr Phe Glu Ser Val Ala Phe Pro Gly Trp Phe Ile  
 100 105 110

Ala Val Ser Ser Glu Gly Gly Cys Pro Leu Ile Leu Thr Gln Glu Leu  
 115 120 125

Gly Lys  
 130

<210> 89  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 89  
 Asp Asn Val Trp Leu Gln Gln Leu Ala Val Pro Arg Val Pro Val Thr  
 1 5 10 15

Ala Ile Cys Glu Leu Glu Arg Gly Pro Ile Tyr Leu Gly Cys Leu Cys  
 20 25 30

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Lys Val Gly Gln Pro Thr Leu Gln Leu Lys Glu Ile Met Asp Leu Tyr  
 35 40 45

Gln Pro Glu Pro Val Lys Phe Leu Phe Tyr Gly Arg Ser Thr Glu Ser  
 50 55 60

Val Ala Phe Pro Trp Phe Ile Ala Ser Ser Pro Ile Leu Thr Glu Leu  
 65 70 75 80

Gly Lys

<210> 90

<211> 129

<212> PRT

<213> Homo sapiens

<400> 90

Asp Leu Asn Gln Gln Val Trp Thr Leu Gln Gly Gln Asn Leu Val Ala  
 1 5 10 15

Val Pro Arg Ser Asp Ser Val Thr Pro Val Thr Val Ala Val Ile Thr  
 20 25 30

Cys Lys Tyr Pro Glu Ala Leu Glu Gln Gly Arg Gly Asp Pro Ile Tyr  
 35 40 45

Leu Gly Ile Gln Asn Pro Glu Met Cys Leu Tyr Cys Glu Lys Val Gly  
 50 55 60

Glu Gln Pro Thr Leu Gln Leu Lys Glu Gln Lys Ile Met Asp Leu Tyr  
 65 70 75 80

Gly Gln Pro Glu Pro Val Lys Pro Phe Leu Phe Tyr Arg Ala Lys Thr  
 85 90 95

Gly Arg Thr Ser Thr Leu Glu Ser Val Ala Phe Pro Asp Trp Phe Ile  
 100 105 110

Ala Ser Ser Lys Arg Asp Gln Pro Ile Ile Leu Thr Ser Glu Leu Gly  
 115 120 125

Lys

<210> 91

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<211> 81  
 <212> PRT  
 <213> Mus musculus

<400> 91  
 Ile Tyr Leu Gly Leu Asn Gly Leu Asn Leu Cys Leu Met Cys Ala Lys  
 1 5 10 15

Val Gly Asp Gln Pro Thr Leu Gln Leu Lys Leu Gln Glu Lys Asp Ile  
 20 25 30

Met Asp Leu Tyr Asn Gln Pro Glu Pro Val Lys Ser Phe Leu Phe Tyr  
 35 40 45

His Ser Gln Ser Gly Arg Asn Ser Thr Phe Glu Ser Val Ala Phe Pro  
 50 55 60

Gly Trp Phe Ile Ala Val Ser Ser Glu Gly Gly Cys Pro Leu Ile Leu  
 65 70 75 80

Thr

<210> 92  
 <211> 35  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: consensus  
 sequence

<400> 92  
 Leu Gly Gly Leu Cys Leu Cys Ala Lys Gly Asp Leu Leu Glu Ile Asp  
 1 5 10 15

Leu Glu Lys Phe Phe Ser Gly Phe Glu Ser Ala Pro Gly Trp Phe Glu  
 20 25 30

Pro Leu Thr  
 35

<210> 93  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens

1050/0-1905/60

<400> 93

Val Phe Leu Gly Ile His Gly Gly Lys Leu Cys Leu Ser Cys Ala Lys  
1 5 10 15

Ser Gly Asp Asp Ile Lys Leu Gln Leu Glu Glu Val Asn Ile Thr Asp  
20 25 30

Leu Ser Lys Asn Lys Glu Glu Asp Lys Arg Phe Thr Phe Ile Arg Ser  
35 40 45

Glu Lys Gly Pro Thr Thr Ser Phe Glu Ser Ala Ala Cys Pro Gly Trp  
50 55 60

Phe Leu Cys Thr Thr Leu Glu Ala Asp Arg Pro Val Ser Leu Thr  
65 70 75

<210> 94

<211> 178

<212> PRT

<213> Mus musculus

<400> 94

Met Glu Ile Cys Trp Gly Pro Tyr Ser His Leu Ile Ser Leu Leu Leu  
1 5 10 15

Ile Leu Leu Phe His Ser Glu Ala Ala Cys Arg Pro Ser Gly Lys Arg  
20 25 30

Pro Cys Lys Met Gln Ala Phe Arg Ile Trp Asp Thr Asn Gln Lys Thr  
35 40 45

Phe Tyr Leu Arg Asn Asn Gln Leu Ile Ala Gly Tyr Leu Gln Gly Pro  
50 55 60

Asn Ile Lys Leu Glu Glu Lys Ile Asp Met Val Pro Ile Asp Leu His  
65 70 75 80

Ser Val Phe Leu Gly Ile His Gly Gly Lys Leu Cys Leu Ser Cys Ala  
85 90 95

Lys Ser Gly Asp Asp Ile Lys Leu Gln Leu Glu Glu Val Asn Ile Thr  
100 105 110

Asp Leu Ser Lys Asn Lys Glu Glu Asp Lys Arg Phe Thr Phe Ile Arg  
115 120 125

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Ser Glu Lys Gly Pro Thr Thr Ser Phe Glu Ser Ala Ala Cys Pro Gly  
 130 135 140

Trp Phe Leu Cys Thr Thr Leu Glu Ala Asp Arg Pro Val Ser Leu Thr  
 145 150 155 160

Asn Thr Pro Glu Glu Pro Leu Ile Val Thr Lys Phe Tyr Phe Gln Glu  
 165 170 175

Asp Gln

<210> 95

<211> 177

<212> PRT

<213> Equus caballus

<400> 95

Met Glu Ile Arg Arg Arg Ser Val Arg His Leu Ile Ser Leu Leu Leu  
 1 5 10 15

Phe Leu Phe Tyr Ser Glu Thr Ala Cys His Pro Leu Gly Lys Arg Pro  
 20 25 30

Cys Lys Met Gln Ala Phe Arg Ile Trp Asp Val Asn Gln Lys Thr Phe  
 35 40 45

Tyr Met Arg Asn Asn Gln Leu Val Ala Gly Tyr Leu Gln Glu Ser Asn  
 50 55 60

Thr Lys Leu Gln Glu Lys Ile Asp Val Val Pro Ile Glu Pro Asp Ala  
 65 70 75 80

Leu Phe Leu Gly Leu His Gly Arg Lys Leu Cys Leu Ala Cys Val Lys  
 85 90 95

Ser Gly Asp Glu Ile Arg Phe Gln Leu Glu Ala Val Asn Ile Thr Asp  
 100 105 110

Leu Ser Lys Asn Lys Glu Glu Asn Lys Arg Phe Thr Phe Ile Arg Ser  
 115 120 125

Asn Ser Gly Pro Thr Thr Ser Phe Glu Ser Ala Ala Cys Pro Gly Trp  
 130 135 140

Phe Leu Cys Thr Ala Gln Glu Ala Asp Arg Pro Val Ser Leu Thr Asn  
 145 150 155 160

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Lys Pro Lys Glu Ser Phe Met Val Thr Lys Phe Tyr Leu Gln Glu Asp  
 165 170 175

Gln

<210> 96  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 96  
 Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala Leu  
 1 5 10 15

Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu His  
 20 25 30

Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn Arg  
 35 40 45

Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly Gly  
 50 55 60

Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu Pro Thr Leu Thr Leu  
 65 70 75 80

Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser Lys  
 85 90 95

Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe Glu  
 100 105 110

Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Val Pro Glu Ala Asp  
 115 120 125

Gln Pro Val Arg Leu Thr Gln Leu Pro Glu Asn Gly Gly Trp Asn Ala  
 130 135 140

Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp  
 145 150 155

<210> 97  
 <211> 130  
 <212> PRT

<213> Homo sapiens

<400> 97

Asp Ile Asn His Arg Val Trp Val Leu Gln Asp Gln Thr Leu Ile Ala  
1 5 10 15

Val Pro Arg Lys Val Phe Pro Val Thr Ile Ala Leu Ile Ser Cys Arg  
20 25 30

His Val Glu Thr Leu Glu Lys Asp Arg Gly Asn Pro Ile Tyr Leu Gly  
35 40 45

Leu Asn Gly Leu Asn Leu Cys Leu Met Cys Ala Lys Val Gly Asp Gln  
50 55 60

Pro Thr Leu Gln Leu Lys Leu Gln Glu Lys Asp Ile Met Asp Leu Tyr  
65 70 75 80

Asn Gln Pro Glu Pro Val Lys Ser Phe Leu Phe Tyr His Ser Gln Ser  
85 90 95

Gly Arg Asn Ser Thr Phe Glu Ser Val Ala Phe Pro Gly Trp Phe Ile  
100 105 110

Ala Val Ser Ser Glu Gly Gly Cys Pro Leu Ile Leu Thr Gln Glu Leu  
115 120 125

Gly Lys  
130

<210> 98

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically  
synthesized

<400> 98

tgaagcttca gctgcagtgt

20

<210> 99

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 99

ccgacttttag cacacatcag gcagag

26

<210> 100

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized

<400> 100

gggcctgaat ggactcaat

19

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